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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/437,833	11/09/1999	Cameron T. Cook	233/265	8526

29129 7590 07/28/2005

ROCCO L. ADORNATO
C/O WEST CORPORATION
11808 MIRACLE HILLS DR.
MAIL STOP: W11-LEGAL
OMAHA, NE 68135

EXAMINER

CHOI, PETER H

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/437,833

Applicant(s)

COOK ET AL.

Examiner

Peter Choi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 and 44-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35, and 44-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

A

DETAILED ACTION

1. This communication is in response to the correspondence filed May 9, 2005. Currently, claims 1-35 and 44-52 are pending.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 9, 2005 has been entered.

Summary of Instant Office Action

3. Applicant's arguments regarding claims 1-35 and 44-52 rejected under U.S.C. 103 in the Office Action mailed February 8, 2005 have been fully considered
4. Amendments to claims 1, 8, 16, 25, 31, 44, and 49 have been entered.

Response to Amendment

5. Applicant's amendments to claims 1, 8, 16, 25, 31, 44, and 49 necessitated new grounds of rejection.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-7 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As currently claimed, the schedule generator of claim 1 is used to provide an incentive to a second worker in exchange for accepting a portion of a first worker's schedule. However, it is unclear as to what entity actually provides the incentive (the first worker, or by the company). Also, it is unclear whether the incentive is implicitly or explicitly provided to the worker. It is also unclear as to how the schedule generator is configured to provide incentives to employees. As per the specification, the schedule generator is configured to employ a plurality of different algorithms and scheduling routines to generate employee schedules, but does not provide any means for providing

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employee incentives. Therefore, this new function of the schedule generator is directed to new matter.

As currently claimed, the pool of claim 20 comprises "a listing stored on said database of proposed shift changes...". It is unclear as to whether there exists a separate database of proposed shift changes (which would invoke a lack of antecedent basis), or if it is a reference to the database established in claim 16, which is used to store employee schedule data. For the purposes of the following art rejection, the examiner has interpreted the portion of the claim to read "a listing of proposed shift changes stored on said database".

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-35, and 44-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Castonguay et al. (U.S Patent #5,911,134) in view of "Security System Minimises Baggage" (hereinafter referred to as "Security").

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As per claim 1, Castonguay et al. teaches a system for maintaining and distributing a plurality of respective work schedules generated on behalf of at least one manager supervising a plurality of workers, and for enabling ones of the workers to initiate changes to their own respective work schedules after the work schedules are distributed to the workers, the system comprising at least the following:

a schedule generator (**generate schedules routine 54**) configured to generate data (**schedules**) representing the plurality of respective work schedules for the plurality of workers (**every agent**) [Schedule generating step 37 of Figure 3, Schedule generator 54 of Figure 4, Column 7, lines 11-12, and Column 8, lines 17-19];

a database (**Schedules database 56**) in communication with said schedule generator (**generate schedules routine 54**) for storing said data (**schedules**) [Generate schedules routine 54 and Schedules database 56 from Figure 4, Column 8, lines 17-19]; and

at least one employee interface positioned at at least one location within a work environment (**work station 24 situated within management units 22**), wherein said at least one employee interface is in communication with said schedule generator

(**bidirectional arrow linking work station 24 to Schedule generator 54 and Schedules database 56**) and is configured to display data representing respective ones of the work schedules to corresponding ones of the workers (**worker schedules**) [Management Unit 22 and Workstation 24 of Figure 1, Schedule generator 54 and Schedules database 56 of Figure 4, Column 5, line 55 – Column 6, line 15].

Castonguay et al. does not teach the step of enabling at least a first one of the workers to post at least a portion of his or her own respective work schedule after the work schedules are distributed to the workers, wherein the schedule generator provides an incentive to the second one of the workers to accept the portion of the first one of the workers' work schedule.

While Castonguay et al. provides planning and scheduling personnel, Security teaches an analogous system that enables employees to access the host system in order to remotely input, alter or modify data relative to their work shifts or schedules automatically without requiring any communication, contact or interaction.

Security teaches a system where shift rosters for work shifts are determined 12 months in advance [lines 67-68, 104-105] and made available to staff members, who use workstations located in work areas to book their own leave or swap shifts [lines 93-94]. The system taught by Security runs on an AS/400 with five Compaq 486s networked together [lines 106-107], inherently including other computing components such as the necessary input/output devices (keyboard, mouse, monitor display) that allows staff members to enter (or "post") information, such as requests for leave or shift swaps.

It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate Security's features into Castonguay et al. because the

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combination would yield a system that allows employees to more conveniently access and modify their work schedules remotely without requiring any direct contact or communication with other workers or management.

The combined teachings of Castonguay et al. and Security do not teach the step of obtaining acceptance from workers to accept at least a portion of another worker's work schedule. However, Official Notice is taken that worker requests for action (such as leave or shift swaps) commonly require the approval of others (management, supervisors, other employees impacted by the requested action) and is an old and well-known practice in the business organization arts. This helps to ensure that all workers known when they are scheduled to work and will be more likely to show up to work when needed. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined teachings of Castonguay et al. and Security because submitting a request to and obtaining approval from an authorized approving entity is an essential requisite in any organization in order to ensure that all workers known when they are scheduled to work and will be more likely to show up to work when needed.

The combined teachings of Castonguay et al. and Security fail to teach the step of providing an incentive to the second one of the workers to accept the portion of the first one of the workers' work schedule.

Neither Castonguay et al. nor Security expressly teaches the use of offering employees an incentive in exchange for accepting a portion of another worker's schedule; however, Official Notice is taken that the concept of paying employees premium wages in exchange for working undesirable hours (nights, weekends, holidays, etc.) is old and well known in the art. Accepting a portion of another workers' work schedule would increase the number of hours worked by the second worker, which may render the worker eligible for overtime, shift differential pay, compensatory time, or other means of premium wages. Working more hours places the second employee in a position to earn more money, or accrue time off in lieu of compensation in other circumstances (i.e., working an hour of compensatory time today would allow a worker to work one less hour in the future and still work a predetermined amount of time {such as a forty-hour workweek or eighty-hour bi-week}). Both Castonguay et al. and Security are directed toward efficiently scheduling employees to cover the requirements of all shifts; therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. and Security to include the well-known concept of premium wages to facilitate the willingness of employees to be scheduled with "undesirable" work schedules.

As per claim 2, Castonguay et al. teaches the system of claim 1 wherein said work schedule data comprises data regarding employee work schedules that are not generated around one or more predetermined work shifts (**automatic scheduling of the agents, taking full account of agent availability, preferences, seniority, and**

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fairness; tours do not have particular agents assigned to them) [Column 2, lines 50-53 and Column 8, lines 12-19].

As per claim 3, Castonguay et al. teaches the system of claim 1, wherein the employee interface is adapted to enable the workers to initiate changes to their respective work schedules **(revise schedules of agents)** without action by the at least one manager [Column 2, lines 63-67].

As per claim 4, Castonguay et al. teaches the system of claim 1 further including an attendance module configured to utilize said data representing the work schedules and data regarding which workers are present in the work place **(status codes indicating availability {"Period", "D", "L", "B", "M", "C", "2"} of scheduled workers, whereas unscheduled workers do not appear on the schedule management screen 60)** to determine worker attendance [Figure 8, Column 13, line 66 – Column 14, line].

As per claim 5, Castonguay et al. teaches the system of claim 1 further including a remote user interface **(management unit can be and is often geographically separate from other management units)** in communication with said database **(Schedule database 56)** to facilitate access by a remote user **(workstation 24)** [Column 5, lines 64-66, Figure 4].

As per claim 6, Castonguay et al. teaches the system of claim 1 wherein said employee interface comprises a networked computer **(lines 26a-26n controlling communications between workstation 24 and central computer 12)** to facilitate access to said work schedule data [Column 6, lines 8-15, Figures 1 and 4].

The workstations taught by Castonguay et al. inherently have the software necessary to enables users to access schedule information from the central computer, meeting the limitations of the claim.

As per claim 7, neither Castonguay et al. nor Security expressly teaches the use of a printer; however, Official Notice is taken that it is old and well known in the art to couple a printer with an interface configured to display information. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. to include a printer, as the combination would yield a system that provides employees with electronic and physical copies of their work schedule, thereby serving as an added reminder to each employee of when they are schedule.

As per claim 8, Castonguay et al. teaches a system to distribute a work schedule to a work force of employees and thereafter allow respective ones of the employees to initiate at least one modification to their own respective work schedules after distribution of the work schedule to the employees, the system comprising at least the following:

at least one data storage device (**Schedules database 56**) to store schedule data (**schedules**) corresponding to the work schedule [Schedules database 56 from Figure 4, Column 8, lines 17-19];

at least one computing device (**administrative database 50 located in central computer 12**) in communication with said at least one data storage device (**lines 26a-26n controlling communications between workstation 24 and central computer 12**) to organize and oversee distribution (of employee schedules) [Figure 4, Column 6, lines 10-15] and to enable at least a first one of the employees to initiate at least one modification (**revise schedules of agents**) to his or her own respective schedule data [Column 2, lines 63-67]

at least one kiosk (**workstation 24**) located remotely from said computing device and in communication (**using lines 26a-26n controlling communications between workstation 24 and central computer 12**) with said computing device (**administrative database 50 located in central computer 12**) to provide an interface for the first one of the employees to view his or her work schedule (**displays of status**) [Figure 8, Column 6, lines 15-17].

Castonguay et al. does not teach the step of enabling at least a first one of the workers to post at least a portion of his or her own respective work schedule after the work schedules are distributed to the workers, wherein the schedule generator provides an incentive to the second one of the workers to accept the portion of the first one of the workers' work schedule.

While Castonguay et al. provides planning and scheduling personnel, Security teaches an analogous system that enables employees to conveniently access the host system in order to remotely input, alter or modify data relative to their work shifts or schedules automatically without requiring any communication, contact or interaction.

Security teaches a system where shift rosters for work shifts are determined 12 months in advance [lines 67-68, 104-105] and made available to staff members, who use workstations located in work areas to book their own leave or swap shifts [lines 93-94]. The system taught by Security runs on an AS/400 with five Compaq 486s networked together [lines 106-107], inherently including other computing components such as the necessary input/output devices (keyboard, mouse, monitor display) that allows staff members to enter (or "post") information, such as requests for leave or shift swaps.

It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate Security's features into Castonguay et al. because the combination would yield a system that allows employees to more conveniently access and modify their work schedules remotely without requiring any direct contact or communication with other workers or management.

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Neither Castonguay et al. nor Security expressly teaches the use of offering employees an incentive in exchange for accepting a portion of another worker's schedule; however, Official Notice is taken that the concept of paying employees premium wages in exchange for working undesirable hours (nights, weekends, holidays, etc.) is old and well known in the art. Accepting a portion of another workers' work schedule would increase the number of hours worked by the second worker, which may render the worker eligible for overtime, shift differential pay, compensatory time, or other means of premium wages. Working more hours places the second employee in a position to earn more money, or accrue time off in lieu of compensation in other circumstances (i.e., working an hour of compensatory time today would allow a worker to work one less hour in the future and still work a predetermined amount of time {such as a forty-hour workweek or eighty-hour bi-week}). Both Castonguay et al. and Security are directed toward efficiently scheduling employees to cover the requirements of all shifts; therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. and Security to include the well-known concept of premium wages to facilitate the willingness of employees to be scheduled with "undesirable" work schedules.

Neither Castonguay et al. nor Security expressly teaches the use of a kiosk; however, Official Notice is taken that a kiosk is an interactive computer placed in a secure enclosure in a public place that enables users to have instant electronic access to information, whose basic components include the enclosure, physical hardware (monitor, CPU, input devices, network cables, etc.), and software application (that

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stores information and processes transactions). The workstation taught by Castonguay et al. performs these functions and contain the components required of a kiosk (a display (video display terminal), a keyboard for enabling entry of appropriate administrative commands to manage personnel resources, and networked computer (lines 26a-26n for controlling communications between the terminal and the central computer 12) [Column 6, lines 10-15]), and is therefore functionally equivalent to the recited kiosk. Furthermore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of invention to provide the combined services of the teachings of Castonguay et al. and Security through a kiosk in order to provide employees who do not have their own terminals with an easily accessible means through which their scheduling information may be accessed.

As per claim 9, neither Castonguay et al. nor Security expressly teaches the use of a kiosk; however, Official Notice is taken that a kiosk is an interactive computer placed in a secure enclosure in a public place that enables users to have instant electronic access to information, whose basic components include the enclosure, physical hardware (monitor, CPU, input devices, network cables, etc.), and software application (that stores information and processes transactions). The workstation taught by Castonguay et al. performs these functions and contain the components required of a kiosk (a display (video display terminal), a keyboard for enabling entry of appropriate administrative commands to manage personnel resources, and networked computer (lines 26a-26n for controlling communications between the terminal and the central

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computer 12) [Column 6, lines 10-15]), and is therefore functionally equivalent to the recited kiosk. Furthermore, the workstation taught by Castonguay et al. inherently includes the user interface software (software programming code) required to enable users to interact with it. The Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of invention to provide the combined services of the teachings of Castonguay et al. and Security through a kiosk in order to provide employees who do not have their own terminals with an easily accessible means through which their scheduling information may be accessed.

As per claim 10, Castonguay et al. teaches the system of claim 8 further including a display monitor (**video display terminal**) in communication with said computing device (**using a suitable control circuit for controlling communications between the terminal and the central computer using one of the lines 26a-26n**) to display schedule information (**view employee schedules from Schedules database 56, as indicated by the bidirectional arrow in Figure 4**) to a plurality of workers (**using work terminal 24**) [Column 6, lines 10-15, Figure 4]. The display monitor taught by Castonguay et al. performs the same functionality as an overhead display monitor, meeting the limitation of the claim. Furthermore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. to include an overhead display monitor to be used in conjunction with the kiosk monitor, as they may be used to display separate content, enabling the simultaneous display of interactive content (employees accessing their

individual work schedules) and looping video presentations overhead (broadcasting public announcements applicable to all employees).

As per claim 11, Castonguay et al. teaches the system of claim 8 further including an interface with an activity monitoring device in communication with said computing device to determine the presence (**schedule activity code 66 {"Period" – scheduled open and on call, "D" – closed, out of office, "L" – closed, at lunch, "B" – closed, on break, "M" – closed, but available to open, "C" – closed, key office functions}** and **staffing field indicating the worker's availability status**) of a worker at a place of work [Column 13, line 66 – Column 14, line 33, and Figure 8].

As per claim 12, Castonguay et al. teaches the system of claim 9 further including an interface with an activity monitoring device in communication with said computing device to monitor the activity (**schedule activity code 66 and staffing field indicating the worker's availability status**) of a worker at a place of work [Column 13, line 66 – Column 14, line 33, and Figure 8].

As per claim 13, Castonguay et al. fails to explicitly teach the system of claim 11 wherein said monitoring device comprises an electronic time clock. However, Official Notice is taken it is old and well known in the art that electronic time clocks are used by many businesses and organizations to help keep track of time, with built-in security features that ensure the validity of a timestamp. Time clocks are essential as employees

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cannot always be relied upon to be honest regarding their hours worked. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. to include the well-known step of using electronic time clocks to obtain accurate time measurements of time worked by employees, eliminating the possibility of employees fraudulently overstating the amount of time worked and being paid for extra hours or premium pay (shift differential, overtime, etc.).

As per claim 14, as discussed in the analysis of claim 8, Castonguay et al. teaches a kiosk (**workstation 24**) that includes a networked computer (**lines 26a-26n for controlling communications between the terminal and the central computer 12**) [Column 6, lines 10-15]. Furthermore, the workstation taught by Castonguay et al. inherently includes the user interface software (software programming code) required to enable users to interact with it using an employee interface. The Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of invention to provide the combined services of the teachings of Castonguay et al. and Security through a kiosk in order to provide employees who do not have their own terminals with an easily accessible means through which their scheduling information may be remotely accessed.

As per claim 15, although not explicitly taught, Castonguay et al. teaches the system of claim 8 wherein said data storage device (**Schedules database 56**) comprises a hard disk drive. It is old and well known in the art that databases are

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embodied on computer servers and are themselves are stored on hard disk drives.

Therefore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. to include a hard disk drive in order to store a database of employee work schedules to be implemented in kiosks where employees can access their work schedules.

As per claim 16, Castonguay et al. teaches a method for distributing a work schedule to employees and thereafter enabling the employees at least to initiate at least one modification to a previously distributed work schedule, the method comprising at least the following:

storing data representing the previously distributed work schedule (**schedules for every agent prepared by a generate schedules routine 54**) in a database (**Schedule database 56**), wherein said data defines the work schedules of a plurality of employees (**tours defining a predetermined daily work schedule for a theoretical agent of the management unit**) [Column 7, lines 5-12, and 57-63, Column 8, lines 17-19, Figure 4];

providing employee access to said work schedules at one or more terminals (**workstations 24 connected to Schedule database 56 and organized into management units 22a-22n**) located at one or more locations within a place of business (**management units are generally located at different physical locations**) [Figure 4, Column 2, lines 59-67, Column 3, lines 41-42, Column 5, lines 55-57];

creating opportunities **(enable)** for at least a first one of the employees **(supervisors)** to at least initiate at least one modification of his or her own respective work schedule **(revise or modify agent schedules)** [Column 2, lines 64-66 and Column 16, lines 13-15]; and

transmitting said opportunities to said one or more terminals **(using a suitable control circuit for controlling communications between work terminal 24 and central computer 12 via one of the lines 26a-26n as provided by an AT&T 5ERR® Switch ACD/MIS that automatically makes telephone connections between agent workstations 24 and input telephone lines)** wherein at said one or more terminals at least the second one of the employees may access their own respective work schedule **(using workstation 24 that is connected to Schedule database 56)**, thereby enabling both the first one and the second one of the employees at least to initiate at least one modification **(revise or modify agent schedules)** of their own respective work schedules [Figure 1, Column 2, lines 64-66, Column 5, lines 41-47, Column 6, lines 13-15, Column 16, lines 13-15].

Castonguay et al. does not teach the steps of enabling at least a first one of the workers to post at least a portion of his or her own respective work schedule or providing an incentive to the second one of the workers to accept the portion of the first one of the workers' work schedule.

While Castonguay et al. provides planning and scheduling personnel, Security teaches an analogous system that enables employees to access the host system in order to input, alter or modify data relative to their work shifts or schedules automatically without requiring any communication, contact or interaction.

Security teaches a system where shift rosters for work shifts are determined 12 months in advance [lines 67-68, 104-105] and made available to staff members, who use workstations located in work areas to book their own leave or swap shifts [lines 93-94]. The system taught by Security runs on an AS/400 with five Compaq 486s networked together [lines 106-107], inherently including other computing components such as the necessary input/output devices (keyboard, mouse, monitor display) that allows staff members to enter (or "post") information, such as requests for leave or shift swaps.

It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate Security's features into Castonguay et al. because the combination would yield a system that allows employees to more conveniently access and modify their work schedules remotely without requiring any direct contact or communication with other workers or management.

The combined teachings of Castonguay et al. and Security do not teach the step of obtaining acceptance from workers to accept at least a portion of another worker's work schedule. However, Official Notice is taken that worker requests for action (such

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as leave or shift swaps) require the approval of others (management, supervisors, other employees impacted by the requested action) and is an old and well-known practice in the business organization arts. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined teachings of Castonguay et al. and Security because submitting a request to and obtaining approval from an authorized approving entity is an essential requisite in any organization.

The combined teachings of Castonguay et al. and Security fail to teach the step of providing an incentive to the second one of the workers to accept the portion of the first one of the workers' work schedule.

Neither Castonguay et al. nor Security expressly teaches the use of offering employees an incentive in exchange for accepting a portion of another worker's schedule; however, Official Notice is taken that the concept of paying employees premium wages in exchange for working undesirable hours (nights, weekends, holidays, etc.) is old and well known in the art. Accepting a portion of another workers' work schedule would increase the number of hours worked by the second worker, which may render the worker eligible for overtime, shift differential pay, compensatory time, or other means of premium wages. Working more hours places the second employee in a position to earn more money, or accrue time off in lieu of compensation in other circumstances (i.e., working an hour of compensatory time today would allow a worker to work one less hour in the future and still work a predetermined amount of time {such

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as a forty-hour workweek or eighty-hour bi-week}). Both Castonguay et al. and Security are directed toward efficiently scheduling employees to cover the requirements of all shifts; therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. and Security to include the well-known concept of premium wages to facilitate the willingness of employees to be scheduled with "undesirable" work schedules.

As per claim 17, although not taught by Castonguay et al., Security teaches the method of claim 16, further comprising evaluating whether the second one of the employees is qualified to accept the portion of the work schedule **(checking to see if any rules {regarding the number of hours worked} are broken, comparing employee skill levels with the minimum skill levels and minimum number of staff required for each work shift)** posted by the first one of the employees [lines 39-45, and 77-79].

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. to include the features of Security because it would beneficially provide a system that would verify the consistency of a user (employee) actions with scheduling requirements including their skills or qualifications, ensuring that another employee with similar skills can substitute and perform required tasks.

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As per claim 18, Castonguay et al. teaches the method of claim 16 wherein said creating opportunities comprises generating sheets (**tour template defining the boundaries of permissible tours, e.g., the earliest and latest agent start times, maximum hours per week, number of breaks, etc.**) and displaying said sheets on a terminal (**video display terminal**) [Column 6, line 11, Column 8, lines 1-4, Figure 5]. The display monitor taught by Castonguay et al. performs the same functionality as an overhead display monitor, meeting the limitation of the claim. Furthermore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. to include an overhead display monitor to be used in conjunction with the kiosk monitor, as they may be used to display separate content, enabling the simultaneous display of interactive content (employees accessing their individual work schedules) and looping video presentations overhead (broadcasting public announcements applicable to all employees).

As per claim 19, Castonguay et al. teaches the method of claim 16 further including the steps of:

establishing a pool (**“teams” of agents organized into “management units” to which employees would manage personnel resources {“input or post” shifts that are available for trade} using workstations 24**) to which employees may post shifts that are available for trade [Column 5, lines 57-61, Column 6, lines 10-13 and 25-28];

Although not taught by Castonguay et al., Security teaches a step where staff enters (or “posts”) requests for leave or shift swaps [lines 93-94]. The teachings of Security are implemented in workstations, used in conjunction with individual smart cards that allow employees to access their own files [lines 97-99].

Security also teaches the step of allowing employees (**staff**) to swap shifts. Although not specifically taught, it is inherent that the employee had to accept a shift from a pool of available shifts posted by other employees in this step.

It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate Security’s features into Castonguay et al. because the combination would yield a system that allows employees to more conveniently access and modify their work schedules remotely without requiring any direct contact or communication with other workers or management.

Official Notice is taken that it is an old and well-known step in the business art to modify employee work schedules based on any changed made due to leave requests, shift swaps, change in scheduled hours, etc. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined teachings of Castonguay et al. and Security to include the step of modifying employee work schedules to reflect changes in each employee’s work schedule and corresponding

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eligibility (availability to work additional hours, to obtain overtime status, to receive compensatory hours or shift differential pay, etc.).

As per claim 20, although not taught by Castonguay et al., it is an old and well-known concept in the art to store proposed changes to a schedule in a database, as it enables employers to ensure that a sufficient number of employees are scheduled to work during each shift and provides a historical record of employee schedule change requests. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. to include the step of storing a list of proposed shift changes posted by employees, as the result would yield the additional benefit of allowing human resource departments to determine if there are any developing trends in employee absence (i.e., particular employees showing an aversion to working specific work shifts, employees proposing shift changes to accommodate regularly occurring special circumstances {religious observance, anniversaries, vacations}) that may be used in developing future work schedules that would reduce the need for employees to make changes to their work schedules.

As per claim 21, Castonguay et al. does not explicitly teach the method of claim 19 further including displaying said shifts posted to said pool on a display for viewing by a plurality of employees. Castonguay et al. teaches the step of establishing a pool of employees to whom an employee may enter appropriate administrative commands to manage personnel resources (requested changes in work schedules) [Column 6, lines

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10-13]. However, it is an old and well-known concept in the art to display requested schedule changes in public areas that are accessible to other employees. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. to include the step of displaying the shifts posted to the pool of available shifts, as it makes the requested schedule changes accessible to other employees who may be able to accommodate such requests, depending on their own schedules and availability.

As per claim 22, Castonguay et al. teaches the method of claim 16 wherein said one or more terminals (**workstation 24**) comprises a display monitor (**video display terminal**) [Column 6, lines 10-11].

Neither Castonguay et al. nor Security expressly teaches the use of a kiosk; however, Official Notice is taken that a kiosk is an interactive computer placed in a secure enclosure in a public place that enables users to have instant electronic access to information, whose basic components include the enclosure, physical hardware (monitor, CPU, input devices, network cables, etc.), and software application (that stores information and processes transactions). The workstation taught by Castonguay et al. performs these functions and contain the components required of a kiosk (a display (video display terminal), a keyboard for enabling entry of appropriate administrative commands to manage personnel resources, and networked computer (lines 26a-26n for controlling communications between the terminal and the central

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computer 12) [Column 6, lines 10-15]), and is therefore functionally equivalent to the recited kiosk. Furthermore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of invention to provide the combined services of the teachings of Castonguay et al. and Security through a kiosk in order to provide employees who do not have their own terminals with an easily accessible means through which their scheduling information may be accessed.

As per claim 23, Castonguay et al. teaches the method of claim 16 further including the steps of:

modifying said employee schedules (**revise schedules of agents**) in response to an employee signing up for said opportunities for employees to modify their work schedule (**to insure that responsibilities are met**) [Column 2, lines 63-67]; and

storing schedules in said database (**daily schedules stored in Schedules database 56**) [Column 8, lines 17-19].

Although not specifically taught by Castonguay et al. or Security, Official Notice is taken that it is an old and well-known step in the business art to saved modified employee work schedules based on any changed made due to leave requests, shift swaps, change in scheduled hours, etc. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined teachings of Castonguay et al. and Security to include the step of storing modified employee work schedules to reflect changes in each employee's work schedule and determine the corresponding

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availability (to work additional hours, to obtain overtime status, to receive compensatory hours or shift differential pay, etc.) of each employee, helping to ensure that a sufficient number of employees are scheduled to work each work shift, and that each employee has an updated copy of their schedule to serve as an added reminder of their scheduled work shifts to make them aware of their work schedule and make them more likely to show up to work when expected.

As per claim 24, neither Castonguay et al. nor Security expressly teaches the use of a kiosk; however, Official Notice is taken that a kiosk is an interactive computer placed in a secure enclosure in a public place that enables users to have instant electronic access to information, whose basic components include the enclosure, physical hardware (monitor, CPU, input devices, network cables, etc.), and software application (that stores information and processes transactions). The workstation taught by Castonguay et al. performs these functions and contain the components required of a kiosk (a display (video display terminal), a keyboard for enabling entry of appropriate administrative commands to manage personnel resources, and networked computer (lines 26a-26n for controlling communications between the terminal and the central computer 12) [Column 6, lines 10-15]), and is therefore functionally equivalent to the recited kiosk. Furthermore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of invention to provide the combined services of the teachings of Castonguay et al. and Security through a kiosk in order to provide

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employees who do not have their own terminals with an easily accessible means through which their scheduling information may be accessed.

As per claim 25, Castonguay et al. teaches a method for modifying a schedule to account for changes in workload occurring after the schedule has been distributed to employees, the method comprising at least the following:

creating a sheet having one or more slots for a work shift (**four templates are defined, each template describing a bounded work shift having work rules and operating constraints**) [Column 6, lines 37-40, Figure 5] after the schedule has been distributed to the employees, a number of employees (**agent list 61, time scale 63, time line 64, net staffing field 67**) specified by the schedule to work during the work shift [Figure 8, Column 13, lines 20-65];

transmitting said sheet for viewing by a plurality of employees (**using networked workstation 24 and lines 26a-26n using control circuit for controlling communications between the terminal and central computer 12**) [Column 6, lines 10-15 and Column 13, lines 12-20].

Castonguay et al. does not teach an offer to adjust scheduled work shifts. However, Security teaches a system where staff can book leave or swap shifts using networked computers that allow staff to enter information, such as alterations, leave and swapping requests to their work schedules or part or portion thereof and transmitting the information via the networked computers to the display monitors of other employees. It

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would have been obvious to one of ordinary skill in the art at the time of invention to incorporate Security's features into Castonguay et al. because the combination would yield a system that allows employees to more conveniently access and modify their work schedules remotely without requiring any direct contact or communication with other workers or management.

Neither Castonguay et al. nor Security expressly teaches the use of offering employees an incentive in exchange for accepting a portion of another worker's schedule; however, Official Notice is taken that the concept of paying employees premium wages in exchange for working undesirable hours (nights, weekends, holidays, etc.) is old and well known in the art. Accepting a portion of another workers' work schedule would increase the number of hours worked by the second worker, which may render the worker eligible for overtime, shift differential pay, compensatory time, or other means of premium wages. Working more hours places the second employee in a position to earn more money, or accrue time off in lieu of compensation in other circumstances (i.e., working an hour of compensatory time today would allow a worker to work one less hour in the future and still work a predetermined amount of time {such as a forty-hour workweek or eighty-hour bi-week}). Both Castonguay et al. and Security are directed toward efficiently scheduling employees to cover the requirements of all shifts; therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. and Security to include the

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well-known concept of premium wages to facilitate the willingness of employees to be scheduled with "undesirable" work schedules.

Official Notice is taken that it is an old and well-known practice in the art to monitor a sign-up sheet for employees accepting an offer (by signing-up) to fill a vacancy. Upon detecting said sign-up, the sign-up would be accepted and both the sheet and the number of employees working on the shifts involved would be modified to reflect said sign-up, since shifts that are accepted by other workers would no longer be available to other employees, and the originally scheduled employee would no longer be scheduled to work that shift. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. to include the step of monitoring and updating sign-up sheets after an offer is accepted by an employee, in order to maintain payroll records (giving employees credit for hours worked, or tracking the amount of leave hours used by an employee), and ensure that a sufficient number of employees are scheduled to work each work shift, each sign-up sheet serving as an added reminder to the signed-up workers that they need to modify their originally scheduled work shifts and show up to work when expected.

Although not specifically taught by Castonguay et al. or Security, Official Notice is taken that it is an old and well-known step in the business art to saved modified employee work schedules based on any changed made due to leave requests, shift swaps, change in scheduled hours, etc. It would have been obvious to one of ordinary

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skill in the art at the time of invention to modify the combined teachings of Castonguay et al. and Security to include the step of storing modified employee work schedules to reflect changes in each employee's work schedule and determine the corresponding availability (to work additional hours, to obtain overtime status, to receive compensatory hours or shift differential pay, etc.) of each employee, helping to ensure that a sufficient number of employees are scheduled to work each work shift, and that each employee has an updated copy of their schedule to serve as an added reminder of their scheduled work shifts to make them aware of their work schedule and make them more likely to show up to work when expected.

As per claim 26, Castonguay et al. teaches the method of claim 25 wherein creating a sheet comprises using a computer (**work terminal 24**) to create a sign-up page having one or more sign-up slots to increase or decrease the number of workers scheduled to work (**net staffing field 67 indicating the number of employees required; available, and busy**) during a particular period [Column 14, lines 21-31, and Figure 8].

As per claim 27, neither Castonguay et al. nor Security expressly teach the practice of having employees sign-up on sheets expressing an interest in taking off particular work shifts or picking up additional work shifts; however, Official Notice is taken that it is an old and well-known practice in the art to have employees sign up for available shifts, or post shifts they wish to make available to other employees. It would

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have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. to include the well-known practice of having employees sign-up for shifts that indicate their availability and willingness to work, and to designate shifts that they wish to make available to other employees, as the resulting invention would automate the process of allowing an employer to track the status of each work shift to ensure that a sufficient number of qualified workers are scheduled for each shift and to track the workers scheduled to work each shift so that their schedules are modified to serve as a reminder of their scheduled work shifts .

As per claim 28, neither Castonguay et al. nor Security expressly teaches the step of showing sign-up sheets only to employees qualified to work specific work shifts listed on the sign-up sheets; however, Official Notice is taken that it is an old and well-known practice in the art to present employment opportunities to employees with similar skills and capable of substituting for the originally scheduled employee. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. to include the well-known practice of only showing the sheet to qualified employees, as it would prevent unqualified and undesirable employees from applying to substitute for the originally scheduled employee, ensuring that a sufficient number of qualified employees are scheduled to work during a specific work shift.

As per claim 29, neither Castonguay et al. nor Security expressly teaches the step of closing sign-up sheets once all the slots are filled due to sign-ups; however, Official Notice is taken that it is an old and well-known practice in the art to remove posted vacancies (by closing said sheet having one or more slots for a work shift) once a suitable replacement has been found (slots are filled due to sign-ups). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. to include the well-known practice of closing said sheet having one or more slots for a work shift if all of the slots are filled due to sign-ups, as it would reflect the current status of the availability of the work shift in question (vacancy has been filled, no further employees are required to sign-up as a replacement) and eliminates any possible confusion regarding available shifts.

As per claim 30, Castonguay et al. teaches the method of claim 25 wherein posting comprises displaying said sheet on at least one display or making said sheet available **(implementing at workstation to enable supervisors to make informed staffing decisions for their management units)** via an employee interface **(workstation 24)** [Column 13, lines 12-20]. The display monitor taught by Castonguay et al. performs the same functionality as an overhead display monitor, meeting the limitation of the claim. Furthermore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. to include an overhead display monitor to be used in conjunction with the kiosk monitor, as they may be used to display separate content, enabling the

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simultaneous display of interactive content (employees accessing their individual work schedules) and looping video presentations overhead (broadcasting public announcements applicable to all employees).

As per claim 31, Castonguay et al. fails to explicitly teach a method for employees to at least initiate one change to their work schedule after distribution of the work schedule to the employees using a scheduling system, the method comprising at least the following:

creating a proposed shift trade after distribution of the work schedule, in which a first one of the employees posts at least a portion of a work shift to which the first one of the employees is assigned by the work schedule for acceptance by at least a second one of the employees, said proposed shift trade including at least posting employee shift information regarding shift hours and shift data;

providing an incentive to the second one of the employees to accept the portion of the first one of the employees' work shift;

proposing said proposed shift trade to a shift pool, said shift pool configured to accept response to said posting from other employees;

displaying said shift pool to a plurality of other employees;

monitoring said shift pool for a response from at least the second employee to accept said proposed shift trade; and

whereby upon receiving said response, said method:

updates the work schedules of said first one of the employees and said second one of the employees to reflect the proposed shift trade; and
removes said proposed shift trade from said shift pool.

However, Security teaches a system where shift rosters for work shifts are determined 12 months in advance [lines 67-68, 104-105] and made available to staff members, who use workstations located in work areas to book their own leave or swap shifts [lines 93-94]. The system taught by Security runs on an AS/400 with five Compaq 486s networked together [lines 106-107], inherently including other computing components such as the necessary input/output devices (keyboard, mouse, monitor display) that allows staff members to enter (create and "post") information, such as requests for leave or shift swaps.

Security also teaches the step of evaluating whether the second one of the employees is qualified to accept the portion of the work schedule (**checking to see if any rules {regarding the number of hours worked} are broken, comparing employee skill levels with the minimum skill levels and minimum number of staff required for each work shift**) posted by the first one of the employees [lines 39-45, and 77-79].

It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate Security's features into Castonguay et al. because the

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combination would yield a system that allows employees to more conveniently access and modify their work schedules remotely without requiring any direct contact or communication with other workers or management.

Neither Castonguay et al. nor Security expressly teaches the use of offering employees an incentive in exchange for accepting a portion of another worker's schedule; however, Official Notice is taken that the concept of paying employees premium wages in exchange for working undesirable hours (nights, weekends, holidays, etc.) is old and well known in the art. Accepting a portion of another workers' work schedule would increase the number of hours worked by the second worker, which may render the worker eligible for overtime, shift differential pay, compensatory time, or other means of premium wages. Working more hours places the second employee in a position to earn more money, or accrue time off in lieu of compensation in other circumstances (i.e., working an hour of compensatory time today would allow a worker to work one less hour in the future and still work a predetermined amount of time {such as a forty-hour workweek or eighty-hour bi-week}). Both Castonguay et al. and Security are directed toward efficiently scheduling employees to cover the requirements of all shifts; therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. and Security to include the well-known concept of premium wages to facilitate the willingness of employees to be scheduled with "undesirable" work schedules.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. to include the features of Security because it would beneficially provide a system that would verify the consistency of a user's (employee) actions with scheduling requirements including their skills or qualifications, ensuring that another employee with similar skills can substitute and perform required tasks.

Official Notice is taken that it is an old and well-known practice in the art to monitor a sign-up sheet for employees accepting an offer (by signing-up) to fill a vacancy. Upon detecting said sign-up, the sign-up would be accepted and both the sheet and the number of employees working on the shifts involved would be modified to reflect said sign-up, since shifts that are accepted by other workers would no longer be available to other employees, and the originally scheduled employee would no longer be scheduled to work that shift. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. to include the step of monitoring and updating sign-up sheets after an offer is accepted by an employee, in order to maintain payroll records (giving employees credit for hours worked, or tracking the amount of leave hours used by an employee), and ensure that a sufficient number of employees are scheduled to work each work shift, each sign-up sheet serving as an added reminder to the signed-up workers that they need to modify their originally scheduled work shifts and show up to work when expected.

Although not specifically taught by Castonguay et al. or Security, Official Notice is taken that it is an old and well-known step in the business art to update and save modified employee work schedules based on any changes made due to leave requests, shift swaps, change in scheduled hours, employees signing-up on a sheet to accept a portion of another employee's work schedule, etc. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined teachings of Castonguay et al. and Security to include the step of storing modified employee work schedules to reflect changes in each employee's work schedule and corresponding eligibility (availability to work additional hours, to obtain overtime status, to receive compensatory hours or shift differential pay, etc.).

As per claim 32, Castonguay et al. teaches the method of claim 31 establishing a pool (**"teams" of agents organized into "management units" to which employees would manage personnel resources {"input or post" shifts that are available for trade} using workstations 24**) to which employees may post proposed shift trades (shifts that are available for trade) that can be viewed by employees (**using networked work stations 24**) seeking to modify their schedule [Column 5, lines 57-61, Column 6, lines 10-13 and 25-28].

As per claim 33, Castonguay et al. fails to explicitly teach the method of claim 31 wherein said posting allows other employees to view and sign-up for said proposed shift

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trade. However, as discussed in claim 21, it is an old and well-known concept in the art to display requested schedule changes in public areas that are accessible to other employees. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. to include the step of displaying the shifts posted to the pool of available shifts, as it maximizes the accessibility of requested schedule changes to other employees who may be able to accommodate such requests, depending on their own schedules and availability.

As per claim 34, Castonguay et al. fails to explicitly teach the method of claim 31 further including the step of displaying to an employee on an employee interface only the proposed shift trades that said employee on an employee interface is qualified to perform. However, Security teaches the step of evaluating the qualifications of an employee **(checking to see if any rules {regarding the number of hours worked} are broken, comparing employee skill levels with the minimum skill levels and minimum number of staff required for each work shift)** [lines 39-45, and 77-79].

Official Notice is taken that it is an old and well-known practice in the art to present employment opportunities to employees with similar skills and capable of substituting for the originally scheduled employee. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined teachings of Castonguay et al. and Security to include the well-known practice of showing employees only the proposed shift trades that they are qualified for, as it would prevent

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unqualified and undesirable employees from applying to substitute for the originally scheduled employee, and ensures that a sufficient number of qualified employees are scheduled to work during a specific work shift.

As per claim 35, Castonguay et al. fails to explicitly teach method of claim 31 wherein creating a proposed shift trade comprises:

logging onto said scheduling system at an employee interface; and
selecting which shift hours of a proposed shift trade said posting employee desires to post.

However, Security teaches a method where employees use individual smart cards, in addition to a PIN number, to logon to the scheduling system and access their own files [lines 97-99]. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. with the features of Security, as the resulting method would verify the user's identity and ensure that the employees actually scheduled to work are the ones posting the proposed shift trades.

Official Notice is taken that it is an old and well-known practice in the art to designate specific hours of shifts that an employee wishes to post for trade. It would have been obvious to one of ordinary skill in the art to modify the combined teachings of Castonguay et al. and Security with this well-known step, as the resulting method would enable employees to compare the shift hours of the proposed trade with their availability

(based on the hours they are scheduled to work) in determining the possibility of accepting the hours of the proposed shift trade, impacting their decision to sign-up for said posted shift hours.

As per claim 44, Castonguay et al. teaches a scheduling apparatus for creating and displaying a work schedule and for enabling ones of the employees at least to propose changes to the work schedule after the work schedule is distributed, the scheduling apparatus comprising:

means for creating a schedule (**step 37 generates a schedule for each individual agent of the management unit**) for each of a plurality of employees [Column 7, lines 11-12, Figure 3];

means for storing said schedule (**daily schedules prepared by a generate schedules routine 54 are stored in Schedules database 56**) as schedule data [Column 8, lines 17-19, Figure 4];

means for allowing said employees to view said schedule data (**view schedules from multiple sites**) at a remote location (**using workstation 24**) [Column 2, lines 61-62, Figure 4];

means for retrieving said schedule data (**using workstation 24 to retrieve schedules prepared by a generate schedules routine 54 as indicated by the bidirectional arrow in Figure 4**) from said means for storing (**Schedules database 56**) [Figure 4]; and

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means for displaying said schedule data to at least one of said employees
(supervisors are enabled to view schedules from multiple sites in the call center)
at said remote location **(using workstation 24)** [Column 2, lines 61-62, Figure 4.

Castonguay et al. does not teach the steps of enabling at least a first one of the workers to post at least a portion of his or her own respective work schedule or providing an incentive to the second one of the workers to accept the portion of the first one of the workers' work schedule.

While Castonguay et al. provides planning and scheduling personnel, Security teaches an analogous system that enables employees to access the host system in order to remotely input, alter or modify data relative to their work shifts or schedules automatically without requiring any communication, contact or interaction.

Security teaches a system where shift rosters for work shifts are determined 12 months in advance [lines 67-68, 104-105] and made available to staff members, who use workstations located in work areas to book their own leave or swap shifts [lines 93-94]. The system taught by Security runs on an AS/400 with five Compaq 486s networked together [lines 106-107], inherently including other computing components such as the necessary input/output devices (keyboard, mouse, monitor display) that allows staff members to enter (or "post") information, such as requests for leave or shift swaps.

It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate Security's features into Castonguay et al. because the combination would yield a system that allows employees to more conveniently access and modify their work schedules remotely without requiring any direct contact or communication with other workers or management.

Neither Castonguay et al. nor Security expressly teaches the use of offering employees an incentive in exchange for accepting a portion of another worker's schedule; however, Official Notice is taken that the concept of paying employees premium wages in exchange for working undesirable hours (nights, weekends, holidays, etc.) is old and well known in the art. Accepting a portion of another workers' work schedule would increase the number of hours worked by the second worker, which may render the worker eligible for overtime, shift differential pay, compensatory time, or other means of premium wages. Working more hours places the second employee in a position to earn more money, or accrue time off in lieu of compensation in other circumstances (i.e., working an hour of compensatory time today would allow a worker to work one less hour in the future and still work a predetermined amount of time {such as a forty-hour workweek or eighty-hour bi-week}). Both Castonguay et al. and Security are directed toward efficiently scheduling employees to cover the requirements of all shifts; therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. and Security to include the

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well-known concept of premium wages to facilitate the willingness of employees to be scheduled with "undesirable" work schedules.

As per claim 45, the combined teachings of Castonguay et al. and Security fail to explicitly teach the scheduling apparatus of claim 44, further including means for printing said schedule upon request of one of said employees.

However, Official Notice is taken that it is an old and well known practice in the art to couple a printer with an interface configured to display information. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. to include the well known practice of coupling a printer to the scheduling apparatus, as the combination would yield a system that provides employees with electronic and physical copies of their work schedule, thereby serving as an added reminder to each employee of when they are schedule.

As per claim 46, Castonguay et al. teaches the scheduling apparatus of claim 44 further including means for posting (**using networked workstation 24 and lines 26a-26n using control circuit for controlling communications between the terminal and central computer 12**) [Column 6, lines 10-15 and Column 13, lines 12-20].
one or more sheets (**four templates describing a bounded work shift having work rules and operating constraints**) [Column 6, lines 37-40, Figure 5] for display to said employees.

Official Notice is taken that employees who "sign-up" for increased or decreased work hours are inherently doing so optionally and voluntarily; if it were mandatory, employees would automatically be assigned increased or decreased work hours. The presence of sign-up sheets inherently implies that workers who wish to work an increased or decreased number of hours may do so by voluntarily signing up on one of the sheets, thereby making the posted sheets taught by Castonguay et al. meet the limitations of the claim. Furthermore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. to include the step of allowing employees to sign-up for increased or decreased work hours, as making a list of employees who are willing to pick up additional hours publicly available to employees who are looking to decrease their work hours will enable those employees to be contacted by employees posting shift trade proposals in order to facilitate shift trades.

As per claim 47, Castonguay et al. fails to explicitly teach the scheduling apparatus of claim 44 further including means for posting employee initiated shift trade requests for viewing and sign-up by said one or more employees.

However, Security teaches a system where shift rosters for work shifts are determined 12 months in advance [lines 67-68, 104-105] and made available to staff members, who use workstations located in work areas to book (or "post") their own

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leave or swap shifts [lines 93-94]. The system taught by Security runs on an AS/400 with five Compaq 486s networked together [lines 106-107], inherently including the computer program code logic and other computing components such as the necessary input/output devices (keyboard, mouse, monitor display) that allows staff members to enter (create and “post”) and view information (such as requests for leave or shift swaps) and to sign-up for work shifts in the shift pool of proposed shift trades.

It would have been obvious^u to one of ordinary skill in the art at the time of invention to incorporate Security’s features into Castonguay et al. because the combination would yield a system that allows employees to more conveniently access and modify their work schedules remotely without requiring any direct contact or communication with other workers or management.

As per claim 48, Castonguay et al. teaches the scheduling apparatus of claim 44 further including means for comparing schedule data regarding employees that are scheduled to be working and worker status data regarding employees that are actually at work (**schedule activity code 66 {“Period” – scheduled open and on call, “D” – closed, out of office, “L” – closed, at lunch, “B” – closed, on break, “M” – closed, but available to open, “C” – closed, key office functions} and staffing field indicating the worker’s availability status**) to determine which employees are scheduled but are not working [Column 13, line 66 – Column 14, line 33, and Figure 8].

As per claim 49, Castonguay et al. fails to explicitly teach a computer program product comprising a computer usable medium having computer program logic recorded thereon for providing an automated employee schedule distribution system for use by an entity to distribute employee schedules, and to thereafter to assist in the modification of employee schedules in response to changes in anticipated workload occurring after distribution of the employee schedules to the employees, said computer usable medium comprising at least the following:

- computer program code logic configured to store schedule data on a storage medium, wherein said schedule data comprises the work schedules of a plurality of employees;

- computer program code logic configured to monitor for requests for said employee schedules from employees at employee interfaces;

- computer program code logic configured to transmit said employee schedules to said employee interfaces;

- computer program code logic configured to allow for establishment of at least one sheet containing respective slots for employees to sign-up for additional or reduced hours, each of the slots corresponding to an offer to adjust a number of employees specified by the previously distributed schedule to work during the work shift;

- computer program code logic configured to display said at least one sheet to at least one employee who may accept the offer so as to alter his or her respective work shift in response to the sheet;

computer program code logic configured to provide an incentive to the at least one employee to accept the offer; and

computer program code logic configured to accept a sign-up by the employee to said at least one sheet.

Official Notice is taken that any set of rules, procedures, algorithms, or calculations can be codified into computer program code logic embodied within a computer usable medium. Furthermore, the examiner submits that interactive kiosk (workstations), as taught by Castonguay et al., inherently have codified the procedures, and rules used in interacting with employees using the kiosk (to access their schedules, post shift swap requests, sign-up for available shift proposals, and swap shifts with other employees).

Castonguay et al. teaches a database (**Schedules database 56**) that stores schedules on a storage medium (**database located on central computer 12**), wherein said schedule data comprises the work schedules of a plurality of employees (**every agent**) [Schedule generating step 37 of Figure 3, Schedule generator 54 of Figure 4, Column 7, lines 11-12, and Column 8, lines 17-19];

Castonguay et al. teaches an interface embodied on a networked computer (**lines 26a-26n controlling communications between workstation 24 and central computer 12**) to facilitate access to said work schedule data [Column 6, lines 8-15,

Figures 1 and 4] that inherently contains the logic required to monitor requests for schedules and transmit said schedules to the requesting employees.

Castonguay et al. teaches the creation a sheet having one or more slots for a work shift (**four templates are defined, each template describing a bounded work shift having work rules and operating constraints**) [Column 6, lines 37-40, Figure 5] after the schedule has been distributed to the employees, each slot allowing employees to sign-up to correspond to an offer to work additional or reduced hours, adjusting the number of employees specified by the previously distributed work schedule to work during the work shift (**agent list 61, time scale 63, time line 64, net staffing field 67**) specified by the schedule to work during the work shift [Figure 8, Column 13, lines 20-65];

Castonguay et al. teaches the step of transmitting said sheet for viewing by a plurality of employees (**using networked workstation 24 and lines 26a-26n using control circuit for controlling communications between the terminal and central computer 12**) who may accept the offer so as to alter their respective work shift in response to the sheet [Column 6, lines 10-15 and Column 13, lines 12-20].

Neither Castonguay et al. nor Security expressly teaches the use of offering employees an incentive in exchange for accepting a portion of another worker's schedule; however, Official Notice is taken that the concept of paying employees

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premium wages in exchange for working undesirable hours (nights, weekends, holidays, etc.) is old and well known in the art. Accepting a portion of another workers' work schedule would increase the number of hours worked by the second worker, which may render the worker eligible for overtime, shift differential pay, compensatory time, or other means of premium wages. Working more hours places the second employee in a position to earn more money, or accrue time off in lieu of compensation in other circumstances (i.e., working an hour of compensatory time today would allow a worker to work one less hour in the future and still work a predetermined amount of time {such as a forty-hour workweek or eighty-hour bi-week}). Both Castonguay et al. and Security are directed toward efficiently scheduling employees to cover the requirements of all shifts; therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. and Security to include the well-known concept of premium wages to facilitate the willingness of employees to be scheduled with "undesirable" work schedules.

As per claim 50, although not explicitly taught, Castonguay et al. teaches a data storage medium (**Schedules database 56**) that comprises a hard disk drive. It is old and well known in the art that databases are embodied on computer servers and are themselves are stored on hard disk drives. Therefore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Castonguay et al. to include a hard disk drive in order to store a

database of employee work schedules to be implemented in kiosks where employees can access their work schedules.

As per claims 51 and 52, Castonguay et al. fails to explicitly teach the computer program product of claim 49 further including computer program code logic configured to allow a posting employee to post proposed shift trades to a shift pool or display said shift pool so that employees (other than posting employees) can view said proposed shift trades.

However, Security teaches a system where shift rosters for work shifts are determined 12 months in advance [lines 67-68, 104-105] and made available to staff members, who use workstations located in work areas to book their own leave or swap shifts [lines 93-94]. The system taught by Security runs on an AS/400 with five Compaq 486s networked together [lines 106-107], inherently including the computer program code logic and other computing components such as the necessary input/output devices (keyboard, mouse, monitor display) that allows staff members to enter (create and "post") and view information (such as requests for leave or shift swaps) and to sign-up for work shifts in the shift pool of proposed shift trades.

It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate Security's features into Castonguay et al. because the combination would yield a system that allows employees to more conveniently access

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and modify their work schedules remotely without requiring any direct contact or communication with other workers or management.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The University of California Human Resource Department outlines their compensation policy (**reference 1-V**) of using shift and weekend differential pay to compensate staff members. Eligible employees are paid differential pay for working shifts other than their regularly assigned shifts, for working weekends, and for working outside of predefined hours (after 5 PM and before 8 AM)

The Univeristy of Texas Health Science Center at Houston outlines their compensation policy (**reference 1-W**) of using shift differential pay to compensate employees who work shifts that differ distinctly from their normal shift or fall outside of predefined hours (between 2 PM and 8 AM).

The University of Houston Human Resource Department outlines their compensation policy (**reference 1-X**) of using shift differential pay to compensate employees who work the evening or night shift.

The University of Missouri Human Resource Policy Manual (**reference 2-U**) outlines their compensation policy of shift differential pay. Shift differential pay is intended to recognize time worked outside of day shifts, and eligible employees are paid shift differential pay for working evenings, nights, and split shifts.

The University Professional & Technical Employees organization has published a compensation plan (**reference 2-V**) providing employees with shift differential pay for working evenings, nights, and temporary assignment to shifts other than their regularly schedule shifts,.

The Nursing Opportunities supplement of hospital profiles (**reference 2-W**) provided by RN lists the financial compensation plans used by various hospitals. Most of the profiled hospitals feature shift differential pay for nights, weekends, and holidays. Only a portion of the supplement has been reproduced, so as to provide an idea of the commonality of such concepts in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Choi whose telephone number is (571) 272 6971. The examiner can normally be reached on M-F 8-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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PC

July 15, 2005

Susanna Diaz
SUSANNA M. DIAZ
PRIMARY EXAMINER
AU 3623